

CLAIMS

1) A mammalian secreted group IIF sPLA₂ which is Ca²⁺-dependent, maximally active at pH of about 7-8, and hydrolyzes phosphatidylglycerol versus phosphatidylcholine with about a 15-fold preference.

2) The mammalian secreted group IIF sPLA₂ according to Claim 1, comprising SEQ ID N°2.

3) A mammalian secreted group IIF sPLA₂ according to Claim 1, wherein said mammalian is a human.

4) A nucleic acid molecule comprising an encoding nucleic sequence for a mammalian secreted group IIF sPLA₂ or for a fragment of a mammalian secreted group IIF sPLA₂ having SEQ ID N°2.

5) A nucleic acid molecule according to Claim 4, comprising SEQ ID N°1.

6) A polyclonal or monoclonal antibody directed against a secreted group IIF sPLA₂ according to Claim 1, a derivative or a fragment of said antibody.

7) A vector comprising at least one molecule of nucleic acid according to Claim 4, and associated with adapted control sequences.

8) A cellular host transformed by one molecule of nucleic acid according to Claim 4.

9) A cellular host transformed by a vector according to Claim 7.

10) A nucleic and oligonucleotide probe prepared from one molecule of nucleic acid according to Claim 4.

11) A pharmaceutical composition comprising as active agent at least one nucleic acid molecule according to Claim 4, or one protein according to Claim 1 or a derivative thereof.

12) A pharmaceutical composition according to claim 11 which treats and/or prevents viral and bacterial infections.

13) A pharmaceutical composition according to Claim 11 which treats and/or prevents cancers.

14) A method for identifying a biologically active compound capable of inhibiting the catalytic activity of sPLA₂ according to Claim 1, wherein the compound is added to the cellular hosts according to Claim 8, and release of fatty acids and lysophospholipids is measured.

15) A method for identifying a biologically active compound for its binding properties to sPLA₂ receptors that bind group III sPLA₂s according to Claim 1, wherein a group II sPLA₂ according to Claim 1, is used in competition binding assays with said compound.

16) A method for identifying a biologically active compound modulating cell proliferation, cell migration, cell contraction or apoptosis wherein a group II sPLA₂ according to Claim 1 is added to cells in the presence or absence of said compound and cells are assayed for cell proliferation, cell migration, cell contraction or apoptosis.

17) A pharmaceutical composition containing a therapeutically effective amount of a compound identified by a method according to Claim 14, for treating disease states or disorders involving group IIF sPLA₂s and selected from the group consisting of inflammatory diseases, cancer, cardiac and brain ischemia, acute lung injury, acute respiratory distress syndrome and Crohn's disease.

18) A method for treating and/or preventing viral and bacterial infections in a mammal comprising administering to said mammal a therapeutically effective amount of a pharmaceutical composition according to Claim 11.

19) A method for treating and/or preventing cancers in a mammal comprising administering to said mammal a therapeutically effective amount of a pharmaceutical composition according to Claim 11.